

COMBS FROM ROCK SHELTERS IN THE WAITAKERE RANGES, WEST AUCKLAND

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Abstract. A number of well preserved combs, some in varying stages of manufacture, collected from caves and rock shelters on the west coast of Auckland, New Zealand, earlier this century are described. One is of whalebone, while the remainder are of wood, either one-piece or composite. The one-piece combs are similar stylistically but are smaller than combs from other archaeological collections. Two of the composite combs have intact flax bindings, and all the finished combs are stained with oil and red ochre. These combs are of a form that suggests they are of the later prehistoric period.

West Auckland in the northern North Island, is an area largely surrounded by water. The west coast is bounded by the Tasman Sea and lies exposed to the prevailing weather. The extensive harbours and estuaries of Manukau and Waitemata are situated to the south and east. The area to the west is dominated by the heavily forested Waitakere Ranges which rise to 480 m elevation and stretch southwards from Muriwai Beach to the Manukau Heads (Fig. 1).

Strong evidence of prehistoric occupation is found predominantly on and near the coastlines. There are some 550 recorded pre-European archaeological sites, including 53 pa and associated undefended terraces, over 200 middens, 70 pit complexes and almost 100 individual caves and rock shelters (Hayward & Diamond 1978). The extensive artefact collection from the Waitakere Ranges is rich and varied. In particular, the excellent preservation of wood and fibre artefacts found in the numerous caves and shelters is probably unsurpassed in New Zealand uncontrolled or surface collections.

No scientific archaeological excavations have been conducted in the Waitakere Ranges, but artefact collection ranged from the indiscriminate fossicking by the first timber workers in the late 19th century, to the systematic exploration of cave shelters and other sites by such amateur archaeologists and collectors as G. Nevill, F. Mappin and A.T. Pycroft, G. Fairfield and J. Donald, W.E. Browne, T. Lloyd and E. Willis from the 1930s-1950s. Other collections in the Auckland Institute and Museum belonged to the families of early European settlers in the area such as the Bethells of Te Henga and the Bishops of Titirangi. Former Director of the Auckland Museum, Gilbert Archey, and Ethnologist V.J. Fisher also collected surface finds from the west coast beaches as did Assistant Director, A.W.B. Powell, and Botanist Lucy Cranwell.

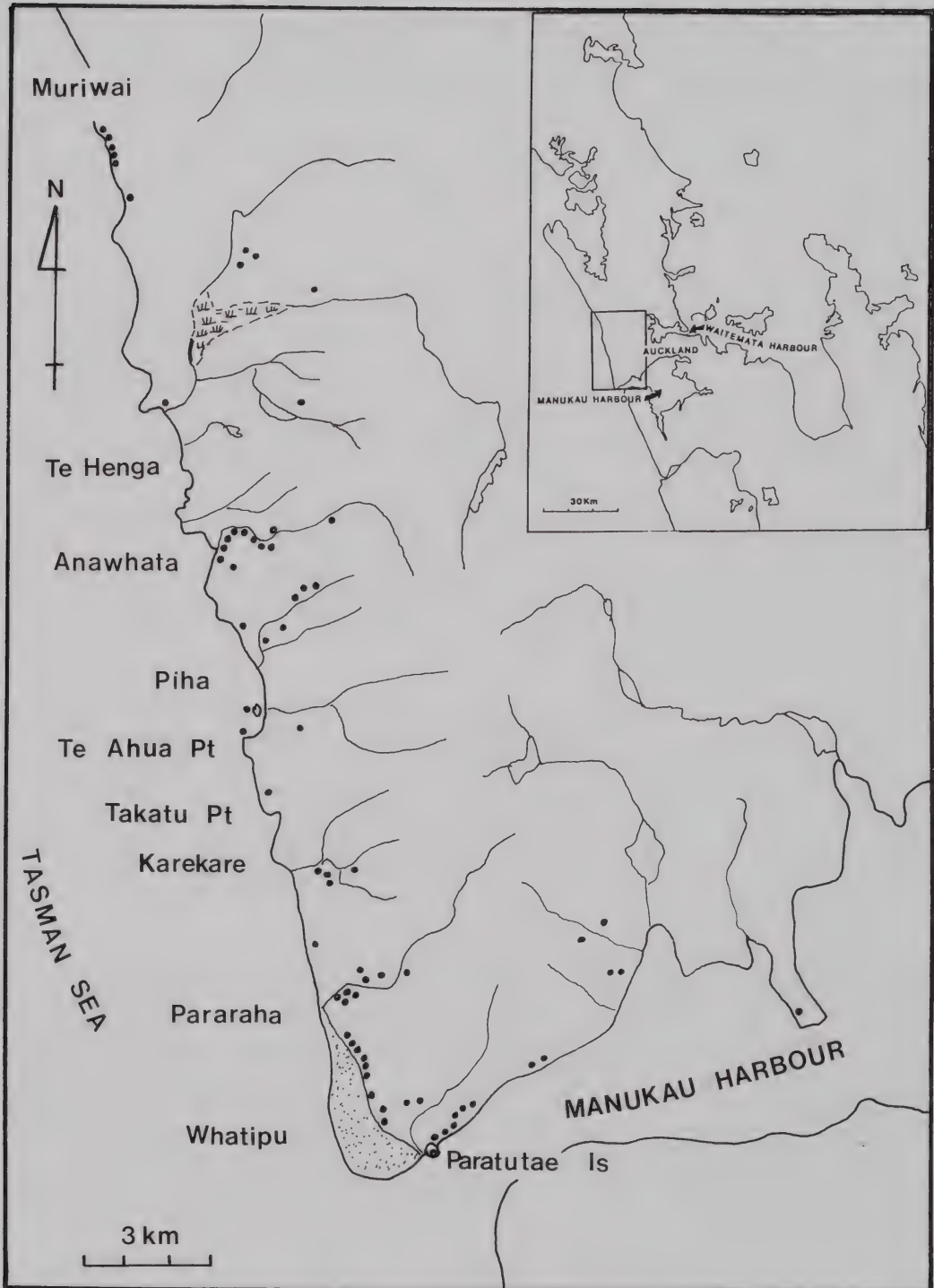


Fig. 1. Location of caves and rockshelters, Waitakere Ranges, West Auckland. Inset. North Island location.

Combs described in this paper come from a number of different sources. The majority are from the Auckland Institute and Museum collection and are identified by an accession number with prefix, as 47234. The letters ME precede the accession number from artefacts lodged in the National Museum, Wellington, as ME 13244. Otago Museum artefacts are prefixed with the letter D, as D 37.3.

Twenty-six combs have been recovered from coastal caves and rock shelters of the Waitakere Ranges (Figs. 2-27). One is of whale bone, and the others, including two blanks, are made of wood. The wood has been identified as *mapara* or *kapara*, the highly resinous heartwood of rimu, though of twelve combs examined microscopically, one (Fig. 15), was an exception, the wood being identified as broadleaf. All combs from the Bay of Plenty swamp sites Kohika (N68/140) and Kauri Point (N53-54/5) are made of *mapara* (Rod Wallace, pers. comm.).

There are 18 simple one-piece combs. The remainder are composite, consisting of separate teeth lashed together with flax fibre. Two are charred by fire (Figs. 18,26) and a further seven may have been deliberately broken. Two combs are in the process of manufacture (Figs. 6,22).

Most of the combs are ochre stained and impregnated with oils. This may have been a significant factor in their preservation, as the wood of combs in the process of manufacture (Figs. 6,22) showing no evidence of ochre or oils, is split and frayed. Oil and ochre may have accumulated through contact with kokowai (red ochre) and oil-dressed hair. L'Horne, accompanying the de Surville expedition of 1796 remarks that:

They dye their hair with red paint dissolved in oil (I could not ascertain what they extracted it from, or how they extracted it), which at first made me think their hair was red.

(Kelly 1967)

The deliberate painting of combs with kokowai is suggested also, as some composite combs have heavy kokowai staining under the now decayed bindings. Several of the Kauri Point combs show signs that the frames were deliberately painted with pigment (Holdaway 1984: 179). Kokowai may also have been rubbed into the combs before they were disposed of in caves (Fisher 1962). The oils for dressing the hair came from a variety of sources. Best (1977: 56) documents the use of fine quality oil expressed from the berries of the titoki. The oil was kept in small gourd vessels with leaves of *Olearia* sp. for fragrance. Or as observed by Joseph Banks:

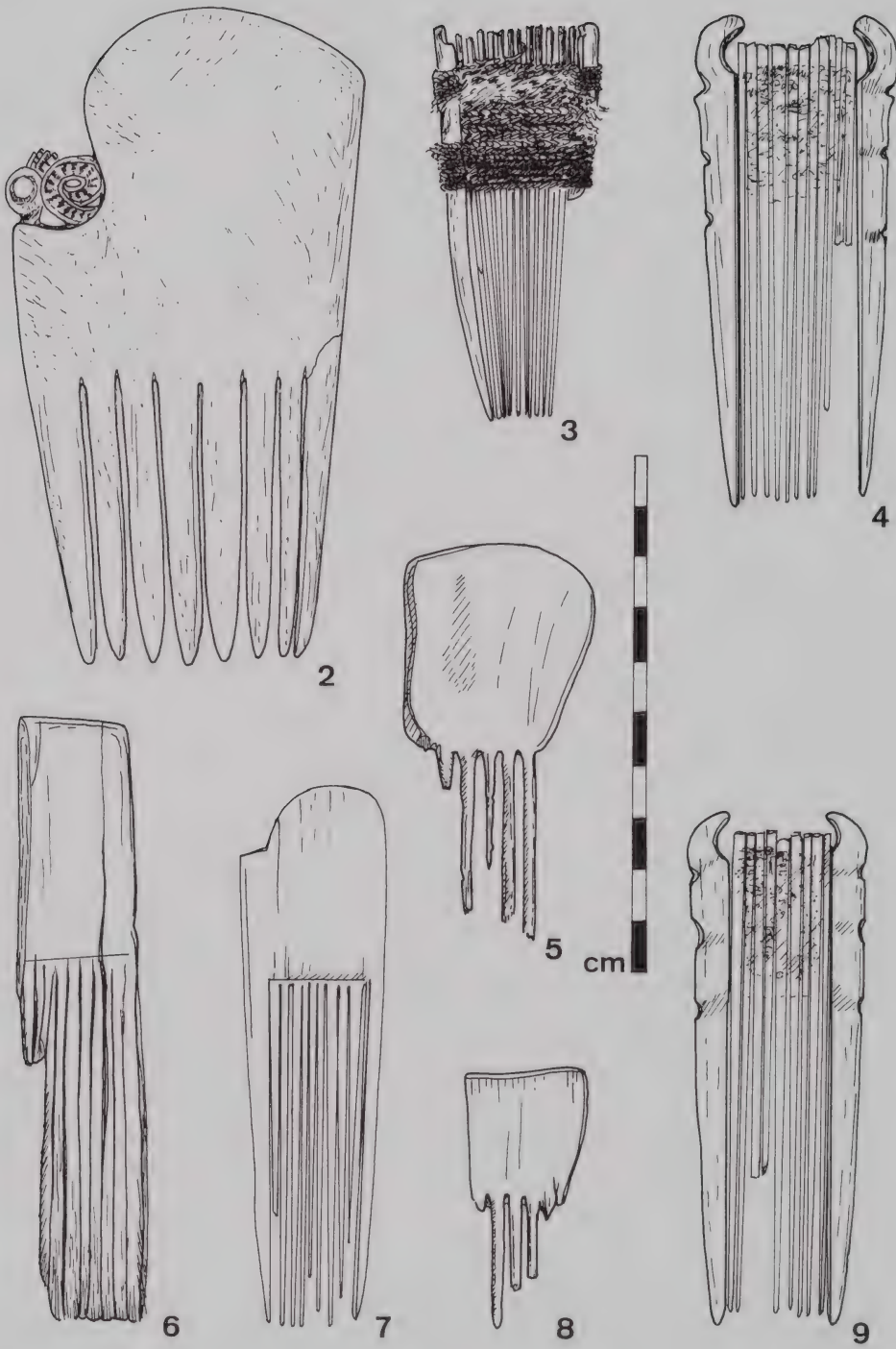
...but the most disgusting thing about them is the oil with which they daub their hair, this is melted either from the fat of fish or birds....

(Morrell 1958)

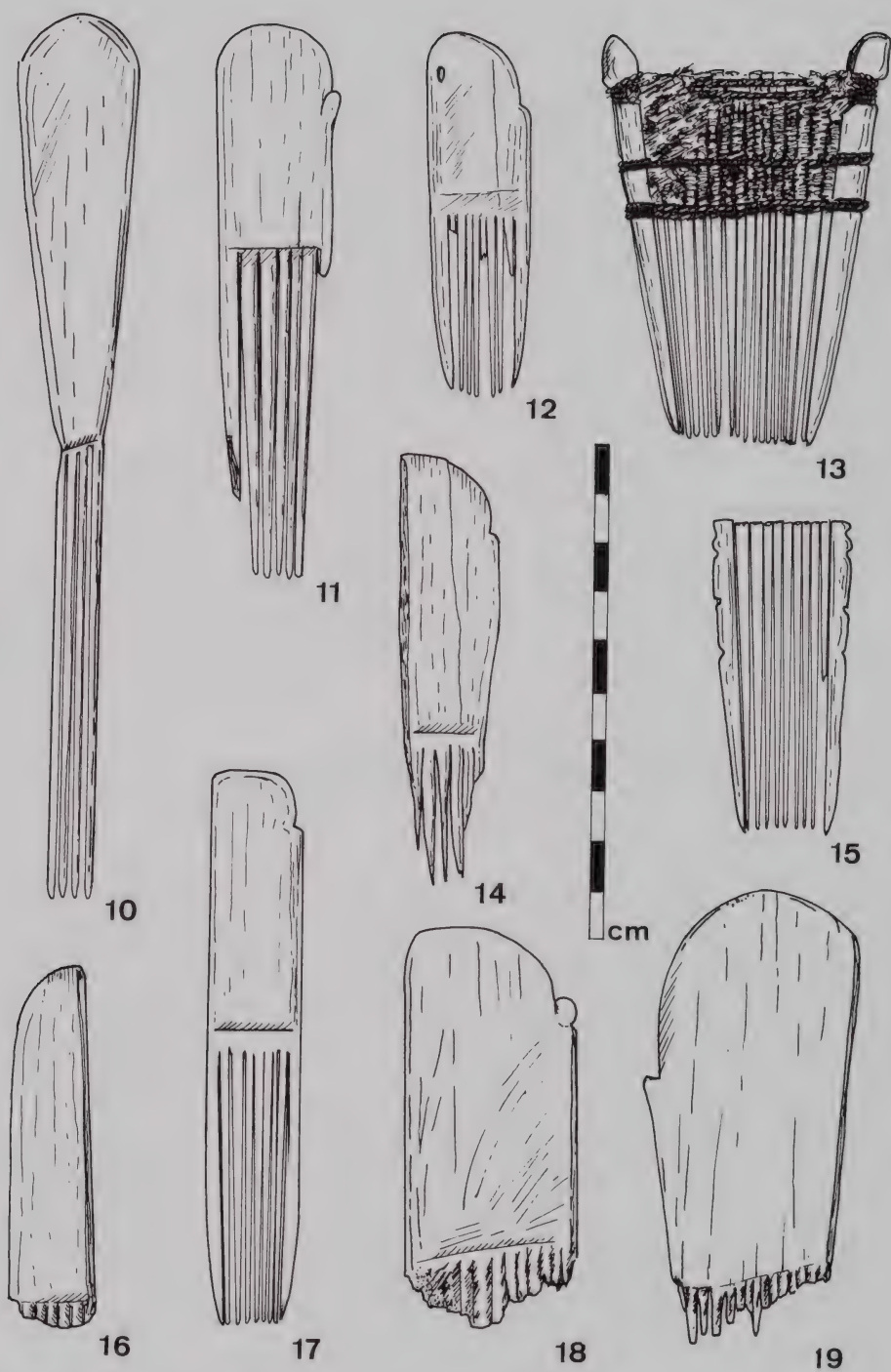
Angas documents the use of both titoki oil and shark oil:

Wooden combs, of small size, but very neatly made, were formerly used by the men for fastening up the hair into a knot at the crown of the head; but these now are becoming obsolete. Oil is employed in beautifying the hair: two sorts of this substance are in use among them; one expressed from the seeds of a tree called *titoki*, the other obtained from shark.

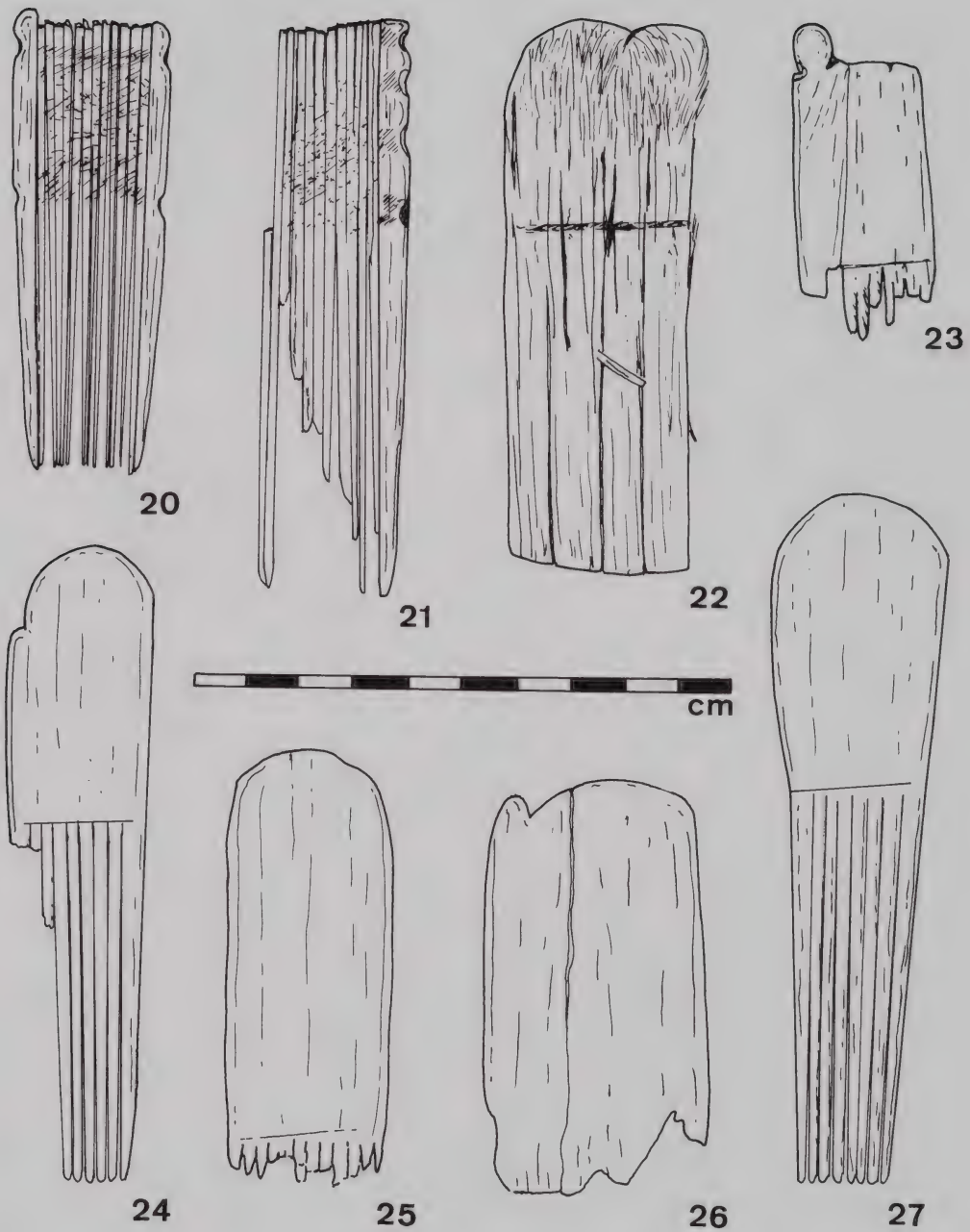
(Angas 1847)



Figs. 2-9. Combs. Waitakere Ranges. 2. 2598 Anawhata. 3. 23879 Anawhata. 4. 23878 Anawhata. 5. 31756 Anawhata. 6. 23882 Anawhata. 7. 23880 Anawhata. 8. 31757 Anawhata. 9. 23881 Anawhata.



Figs. 10-19. Combs, Waitakere Ranges. 10. 31730 Piha. 11. 19768 Piha/Karekare. 12. 22563 Mercer Bay. 13. 17298 Te Henga. 14. 43133 Paratutae. 15. 17104 Paratutae. 16. 43134 Paratutae. 17. 22276 Paratutae. 18. 22277 Paratutae. 19. 31377 West Coast.



Figs. 20-27. Combs, Waitakere Ranges. 20. ME 13264 Te Ahua Pt. 21. ME 13243 Te Ahua Pt. 22. ME 13244 Te Ahua Pt. 23. ME 13245 Te Ahua Pt. 24. ME 13210 Paratutae. 25. ME 13644 Paratutae. 26. 42140/42139 Whatipu. 27. D 37.7 Paratutae.

All but one of the combs (Fig. 13) were found in shelters and caves from Anawhata south to Paratutae Island. Seven of the eight combs located to Anawhata were collected by Mappin and Pycroft but with no additional information. A further six (Figs. 10,11,12,13,21) came from the Piha area, mostly from a large shelter between Te Ahua and Takatu Points (N41/229). Paratutae I was an important repository with six one-piece combs and one composite comb coming from rock shelters there. This distribution pattern may well simply reflect collecting practices rather than actual distribution as many of the combs were found either by Mappin and Pycroft or E. Willis.

Bone comb

The decorative bone comb is included in Duff's list of ornaments of the late prehistoric period and is presumed to be a later feature of Maori culture (Duff 1956; Skinner 1930; Buck 1950). The bone comb (*heru iwi*) illustrated (Fig. 2) is of whale bone and is similar in size, shape and decoration, having a curved top and finely crafted spiral decoration, to one figured from Oruarangi (Fisher 1934: 278). Skinner (1930: 285) has suggested that the use of bone for combs is a late development which was at a peak when Cook arrived in New Zealand and that the wooden comb has been made from the time of earliest settlement. Nicholas describes:

He had a handsome mat adorned with feathers tied around his waist, leaving bare the upper part of his body, which was deeply besmeared with oil and red ochre; his hair was nicely tied up on the crown of his head, and a large comb as white as ivory, made of the bone of some cetaceous animal, and curiously cut in filigree work, stuck in it. His cheeks were painted red, which giving fire and vivacity to his eyes, formed a curious and not unbecoming contrast to his black and bushy beard.

(Nicholas 1817: 98)

One-piece wooden combs

In general the Waitakere one-piece combs taper slightly throughout their length and are well made and carefully finished. The method of manufacture is unknown but they may have been crafted with obsidian, fine files and chisels or even, as suggested by Shawcross (1970), with hafted rat's incisors! There is a possibility that stingray spines may have been used as fine saws for separating the teeth of the combs and several unmodified stingray spines have been found in shelters. When compared with combs from other major collections from the Bay of Plenty archaeological sites, Kauri Point and Kohika (Shawcross 1964; Irwin 1975; Boileau 1978), the Waitakere combs are generally smaller with fewer teeth (Table 1).

Not only are the Waitakere combs smaller than those from the Kauri Point swamp, but many of the combs have heavier outside framing teeth which are present in the Kohika combs, but lacking in the Kauri Point ones. Combs without framing teeth in the Waitakere collection include two fragments (Figs. 5,8) which appear different in other respects. The well-spaced teeth are rounded in section and the frames are rectangular (Fig. 8) or only slightly rounded (Fig. 5). Shawcross (1964), in his stylistic analysis of combs from Kauri Point, found that rectangular shaped (Type B)

Table 1. Comparisons of combs from West Auckland and Bay of Plenty.

	West Auckland	Bay of Plenty	
	Waitakere Ranges	Kauri Point (N53-54/5)	Kohika N68/140)
Number of combs	26	187	6
Average tooth length	6.4 cm (3.6-9.1)	7.8 cm (5-11)	8.3 cm 7.4-10.7)
Average frame length	5.4 cm (2.4-8.6)	6.3 cm (3-13)	10.2 cm (5.2-15.0)
Average frame width	2.5 cm (1.2-4.0)	4.4 cm (2-7)	4.3 cm (3.9-5)
Average frame thickness	0.4 cm (0.3-0.7)	0.4 cm (0.3-0.6)	0.4 cm (0.3-0.5)
Average tooth rate per comb	9	13	15
Wood type	mostly mapara	mapara	mapara

comb frames occurred in greater numbers earlier in the sequence, with the earliest dates of comb deposition in the swamp being about A.D. 1500 (Shawcross 1964, 1970; Green 1978). It is possible that these two examples (Figs. 5,8) may be of earlier date than the other combs, which are round topped, either completely plain or with knobs cut out of the original profile. Shawcross (1964) has identified these as being a relatively late form. He bases this on relative frequencies in the sequence and the fact that they are similar, if slightly less ornate, to those collected on Captain Cook's first voyage in A.D. 1769 and illustrated by Sydney Parkinson. Green (1978: 39) suggests that the deposition of combs at Kauri Point commenced about A.D. 1500 and continued for about 200 years, ending before the 18th century.

There is relative lack of ornamentation on the Waitakere combs in contrast to that found on the earliest ethnographic specimens, however a wooden comb figured by Kaeppler (1978: fig. 335) collected on one of Cook's voyages is very similar to the Fig. 7 example from Anawhata. Sydney Parkinson's drawings may have concentrated on Maoris of high status and consequently their ornaments would be more elaborate than those of the general population.

One-piece combs are not known archaeologically or ethnographically from eastern Polynesia. According to Hosking & Leahy (1982: 96) it is likely that such combs were an indigenous development in New Zealand.

Composite combs

There are seven composite combs in the collection. Composite combs consist of a number of carefully shaped wooden teeth tapering throughout their length to slender rounded ends. Heavier outer framing teeth are notched to help secure the binding cords. The bindings are finely plied flax cord and the weaving technique in the case of the two complete Waitakere examples is single-pair twining (Fig. 3) and a mixture

of single-pair twining to attach the frame to the inner teeth and a simple plain weave to bind the teeth (Fig. 13). Examples of composite combs with completely decayed lashings (Figs. 4,9,15,20,21) show heavy kokowai staining and many small fragments of fibre adhering to the inner teeth. This may indicate that an adhesive gum was used to help bind the lashing to the teeth.

Archaeologically, elements from composite combs are rare. A rock shelter, Waihora Bay, Taupo (N93/5) (Hosking & Leahy 1982) contained comb fragments of bone and composite wooden combs, kokowai stained, with partly intact lashings. Fine composite combs are included in museum collections and are illustrated and represented in collections from Cook's voyages (Kaepler 1978). A series of Maori heads (Fig. 28) illustrated by Parkinson (1784) show a possible composite comb on the upper right head. The other combs are of wood with exaggerated knobs. The composite comb is known in West Polynesia ethnographically, but according to Davidson (1984: 87) it is likely to have been a widespread form which died out in other parts of East Polynesia.

For cultural reasons, this image has been removed.
Please contact Auckland Museum for more information.

Fig. 28. Top knot styles and combs (from Parkinson 1784).

DISCUSSION

Stylistically most of the combs found in the Waitakere Ranges are simple and unornamented and appear to be the "everyday" ornaments of ordinary people. A wooden comb collected on one of Captain Cook's voyages is of similar form to some of the Waitakere combs indicating that this simple style was in use at the time of European contact. Similarly, the whalebone comb is a typical hair decoration of the contact period (Skinner 1930). Carbon-dating of shell from shelters and other prehistoric sites along the west coast supports a 16th-17th century period of peak population of the Kawerau tribe, with pa constructed to provide defense against sporadic and repeated raiding from the north (Hayward & Diamond 1980). Many of the rock shelters contained artefacts of wood, bone, shell, fibre, midden and fire stones indicating at least temporary occupation. The Kawerau population declined dramatically after the 17th century through repeated warfare and introduced diseases (Tuaa 1987). Following this decline in permanent population some of the shelters were used as burial sites and repositories for such tapu objects as cut hair and combs.

The possible lateness of some of this deposition and the tapu nature of these combs, the dryness of the caves and the early retrieval of the artefacts by responsible collectors accounts for the excellent state of preservation of this large collection of combs.

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